

WORKSCOPE FOR KC-10 FAN THRUST REVERSERS

This document will define the workscope required to repair KC-10 thrust reversers. The manufacturers CF 6-50 Fan Reverser Workscope Planning Guide revision 4, dated November 1985 and applicable Component Maintenance Manuals (CMM) will be utilized. The following additional requirements shall apply.

1. All MA-25 coating will be removed from core cowl during teardown and inspection. Preferred method of removal is plastic media bead blasting.
2. All gearboxes will be overhauled using component maintenance manuals 78-32-02 and 78-32-03.

3. REPAIRS:

a) 78-32-03/Repair 029 - Adds a strap doubler to the core cowl between the 4th zee ring (rib) and the aft closeout. We request strap doubler be replaced with an additional 2 ring.

b) 78-32-03/Repair 031 - Replace torque box intumescent paint with isolation blankets.

c) 78-32-03/Repair 004 - Reapply MA25-S ablative coating to maximum thickness specified (.125). Coating to be applied using spray techniques to ensure uniform thickness. Trowl method is not acceptable.

4. All repairs will employ optimum bonding processes to include:

- a) All bonding surfaces to be phosphoric acid anodized.
- b) All repairs will employ permanent bondment tooling.
- c) All repairs will employ autoclave procedures on all major delamination areas.
- d) Use latest adhesive systems to optimize strength at hot-wet conditions. Use only the adhesive primer that is specified for given film adhesive. Do not mix or match use recommended adhesives and primers.

** EA9689.09 film adhesive primer
*** The Dexter Corporation-Pittsburgh, California
*** Adhesive: consumable C01-165
*** Primer: C01-121

** FM350NA film adhesive with BR154 adhesive primer
*** American Cyanamid Company -
Haver De Grace, MD
*** Adhesive: C01-165
*** Primer: C01-166

** AF-191K film adhesive with EC3917 adhesive primer
*** 3M Company - St. Paul, Minnesota
*** Adhesive: C01-165
*** Primer: C01-166

NOTE: If not already listed in the GE Standard Practices Manual, all adhesive and primer consumable information is to be in the May 1994 revision.

5. SERVICE BULLETINS:

- a) The following Service Bulletins shall be complied with when applicable: (4 Pages)

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SERVICE BULLETINS

SECTION 1. TRANSLATING COWL(S)

Review technical history: establish (where applicable) time since installed, nacelle location, previous maintenance, and service bulletins.

Recommended Service Bulletins:

<u>S/B No.</u>	<u>Description</u>
78-61	Rework of translating cowl guide bracket
78-71	Introduction P/N 9151M45P01 and seal brackets P/N 9007M67P263M or P/N 9007M60P264M
78-73	Improved screw holes and paint
78-112	Translating cowl inner bondment rework

78-165	“L” seal reintroduction
78-189	Transcowl Doubler
78-190	Nacelle Leakage Sealing
78-192	Intro Light Weight Reverser
78-215	Light Weight Reverser w/Composite T/O

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SERVICE BULLETINS**

SECTION II. SUPPORT ASSEMBLY (FIXED)

Recommended Service Bulletins:

<u>S/B No.</u>	<u>Description</u>
78-80	Deflector pattern modification to permit fan reverser operation at low KIAS
78-89	“T” track nylatron wear sleeve fastener pattern spacing change
78-97	Aft access and blow-out door stiffener hat section
78-104	Addition of insulation material to lower duct sidewall
78-110	Addition of Z-rings to provide increased inner cowl stiffness
78-122	Incorporation of fire protection coating and steel wear strip
78-123	Forward compartment cooling change provided for the pressure regulator valve-improved fan reverser right-hand cooling manifold of fan reverser right-hand cooling tube deflectors
78-137	Precooler seal length increase
78-150	Rework of the precooler duct flange clip seal
78-169	Right-hand forward cooling manifold assembly - TBC 747, E-4A and E-4E
78-190	Nacelle leakage sealing

78-230	F-R/Recoup duct seal replacement
78-232	F-R/Core cowl bondment assembly preventive maintenance

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SECTION III. CONTROLS AND ACCESSORIES

Cowl Door Actuator, Hydraulics

Recommended Service Bulletins:

<u>S/B No.</u>	<u>Description</u>
78-133	Replacement of the existing mechanical system with a hydraulic system
78-147	Inspection of hydraulic system male quick disconnect fitting
78-155	Hydraulic power door opener system’s hydraulic tubing for interference and wear
78-224	Ballscrew actuator assembly/introduction of an improved end actuator assembly
78-227	F-R/Actuation system/replacement of gearbox output drive shafts
78-229	Ballscrew actuator assembly/improved center gearbox assembly

SECTION IV. FEEDBACK BRACKET ASSEMBLY

Recommended Service Bulletins:

<u>S/B No.</u>	<u>Description</u>
78-54	Feedback bracket assembly rework
78-91	Addition of shims to feedback electric switch
78-108	Introduction of improved feed switch
78-130	Modification of feedback assemblies to incorporate anti-roll and rigging

78-158	Modified feedback indicating switches to improve maintainability
78-171	Introduction of new feedback bracket and alternate feedback bracket shield
78-218	F-R/Feedback Indicator switch with improved contacts
78-222	F-R/Feedback rod guide bracket improvement

SECTION V. FORWARD LATCH RING ASSEMBLY

Recommended Service Bulletins:

<u>S/B No.</u>	<u>Description</u>
78-100	Latch mounting ring pad replacement with production part
78-158	Incorporation of anti-rotation brackets to left-hand latch housing

6. Material List:
The list of material includes all routine material used during reverser overhaul.

<u>PART NUMBER</u>	<u>NOMENCLATURE</u>
08501900	ACETONE
105B3043 T1	BUSHING, O/S GRASS
133A1624P11	WASHER
1B10A02D	321 SS .020 X 4"X10"
3046M82P04	TEFLON STRIP, T HINGE
3110M39P001A	SEAL
9007M82P01	ACTUATOR BUSHING
9017M52P01	SPRING
9017M58P03	BUSHING, LINK ARM
9017M80P02	NYLONTRON WEARSTRIP
9017M96P01	PIN
9017M96P02	CLIP
9019M51P02	SEAL
9019M60P01	INSERT
9019M71P01	RETAINER SPRING
9019M71P02	ADAPTER
9025M87P01	ANCHOR NUT
9035M31P05	FLANGE
9035M31P06	FLANGE
9035M81P01	TORQUE BOX BUMPERS

9036M14P02	SCREW
9059M48P738A	FIRE SHIELD ASSY
9071M20P145A	WEAR STRIP
9071M20P147A	FILLER
9077M99P02	SUPPORT
9110M48P01	DIMPLED WASHER
9111M73P02	SCREW
9131M64P02	INSERT
9151M16P01	SHIM
9151M29P02	RETAINER
9151M67P01	FWD AIR SEAL T/C
9189M62P02	BUMPER
9189M99G03	SEAL, T/C
9189M99G04	SEAL, T/C
9633M07P07	ROD END, LINK ARM
9656M46P02	SPACER
9689M35P01	NUT CLIP
AA17A031	TEFLON STRIP, T HINGE
AA17A042	TEFLON STRIP, T HINGE
AN310O-5	NUT
AN960-416	WASHER
AN960C616L	WASHER
AN960PD10	WASHER
BSM10-86-F	TEFLON PAINT 7-X-33FC UM
C456C500	AMS 3195 FOAM, RUBBER UM
HS12A100	MIL-C-9084 TY 8 OR 8A, FI
IU21-10-CWP2	CLEVIS WEAR
J1153G06	CLAMP
J1153G07	CLAMP
K024E	EPOXY, POLYIMIDE COATING
KM14D300	ALODINE 1200, UM=GAL
KM30A500	MA25, UM=GAL
LS21C100	PRIMER, EPOXY RESIN 463-12
M544A100	EA 9394
MA29C025	PR1750 B1/2, TUBES
MD31A200	METAL SET A4
MJ72A300	EPON 828, COATING
MJ75A075	RTV106, TUBES
MS17825-4	NUT
MS20426AD511	RIVET
MS20470AD4-2	RIVET
MS21042L3	NUT
MS9245-24	COTTER PIN
MS9245-25	COTTER PIN
MS9363-12	FASTENER

NAS1057T3-246	SPACER
NAS1101-02-3	BOLT
NAS1102E3-10	SCREW
NAS1102E3-7	SCREW
NAS1169C10	WASHER
102A440P01	PLATE
3110M70P005A	CC AFT WEAR STRIP
3110M72P001A	LDSW OML SKIN LH
3110M73P001A	LDSW IML SKIN LH
3111M25P001A	UPPER D/S AFT WEAR S
3111M50P001A	LOWER D/S FWD WEAR S
3111M51P001A	UPPER D/S FWD WEAR S
3113M99P001B	UDSW DBLR-INNER
3114M10P001A	AFT LWDS WEAR STRIP
3114M10P001B	AFT LWDS WEAR STRIP
3114M12P001A	WDSW IML DBL LH
3114M21P001A	SEAL SHIM
3114M42P001A	RECOUP GASKET
3114M74P001A	AFT LWDS WEAR STRIP
46M1007-504	FIREBLANKET
9017M59P02	BUSHING, SLEEVED
9017M91P01	GASKET
9019M14P06	STRIP, WEAR
9019M82P02	COLLAR
9019M94P08	WASHER
9019M94P12	WASHER
9019M95P07	SEAL 50 T/C UPR FAI
9019M95P08	SEAL 50 T/C LWR FAI
9033M27P03	GEAR BOX
9036M58P02	CABLE, LATCH
9036M71P02	SEAL
9037M63P06	SWITCH, IND
9041M43P02	PNEUMATIC
9041M54P03	GEAR BOX
9058M26P02	SEAL
9059M10P153A	CC AFT DEFL IML DBLR
9059M43P045A	AFT FAIRING SEAL
9059M45P059A	AFT LWR FAIRING W/P
9059M48P094B	FOAM PAD
9071M67P03	HINGE COVER SEAL
9071M71P02	LATCH
9072M53P003C	SKIN, INNER
9072M53P021C	UPPER D/S ¼ CORE
9077M16P01	SEAL
9077M17P005A	SEAL, CLIP

9077M17P007A	SEAL, CLIP
9077M57P01	CHANNEL, GANG
910M77P04	SCREW, SHOULDER
9111M86P02	SLEEVE
9151M54P001A	BRACKET
9152M69P021A	CC AFT Z DBLR LH
9152M69P029BT1	CC AFT Z DBLR LH ONL
9188M75P02	SEAL, LWR PYLON
9189M98P005A	FOAM PAD
9191M34P01	HYD ACT
9248M19P007A	KC-10 FIFTH ZEE RIB
9248M19P007AKC1	KC-10 FIFTH ZEE RIB
933M12G03	BEAM
CAM783203-025	CC AFT REPAIR RING
HTM1080	HARDWARE KIT
1121-10CWP2	WEARPAD
IU10-LBSS	TEFLON SPRING SLEEVE
P20940	BEARING ASSY